

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-20. (Cancelled).

21. (New) A method for proliferating a hepatitis C virus, characterized by providing a porous carrier capable of immobilizing human hepatocyte thereon which is placed in a culture vessel capable of generating a continuous stream of a liquid culture medium in the culture vessel;

immobilizing human hepatocyte cells on the porous carrier by introducing a continuous stream of liquid medium comprising the human hepatocyte into the culture vessel;

infecting the immobilized human hepatocyte cells with a hepatitis C virus, an infectious clone RNA thereof, or a combination thereof; and

proliferating the hepatitis C virus in the immobilized human hepatocyte cells in the continuous stream of liquid medium.

22. (New) A method according to claim 21, where the carrier is a particulate porous carrier.

23. (New) A method according to claim 21 or claim 22, where the human hepatocyte is of an established cell line.

24. (New) A method according to claim 21 or claim 22, where the culture vessel is a radial flow bioreactor.

25. (New) A method for proliferating a hepatitis C virus, characterized by

placing a porous carrier carrying an immobilized human hepatocyte thereon into a culture vessel which can generate a continuous stream of a liquid medium in the vessel;

infecting the human hepatocyte immobilized on the porous culture with a hepatitis C virus, an infectious clone RNA thereof, or a combination thereof; and

proliferating the hepatitis C virus in the human hepatocyte by maintaining a continuous stream of liquid medium in the culture vessel.

26. (New) A method according to claim 25, where the human hepatocyte is of an established cell line.

27. (New) A method according to claim 26, where the established cell line is the FLC-4 line (FERM BP-5165).

28. (New) The method according to claim 21 or claim 25, wherein no additional supply of fresh culture medium is introduced to the culture vessel after the hepatitis C virus is added to the liquid medium.

29. (New) The method according to claim 1 or claim 7, wherein the human hepatocyte proliferates in three dimensions.